

CLAIMS:

What is claimed is:

1. A method comprising:
 - 2 receiving a request to establish a communication session between a subscriber unit in a
 - 3 wireless communication system and a data network access server through a basestation; and
 - 4 selectively generating a communication session identifier to uniquely identify the
 - 5 communication session from a plurality of communication sessions supported by the network
 - 6 access server to enable mobility management within the point-to-point communication session
 - 7 between the basestation and the network access server.
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2. A method according to claim 1, further comprising:
 - 2 determining, at the network access server, whether the received request is a request for a
 - 3 new communication session or a handoff of an existing communication session.
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2. A method according to claim 2, wherein generation of the communication session
- 3 identifier is selectively performed if the received request is a request for a new communication
- 3 session.
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2. A method according to claim 2, wherein determining comprises:
 - 2 analyzing attribute-value pair(s) (AVP) of the received incoming call request to identify a
 - 3 callType AVP; and

4 identifying the incoming call request as a request for a new communication session if the
5 callType AVP is absent from the incoming call request, or an identified callType AVP associated
6 with the incoming call request denotes a new call.

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I 5. A method according to claim 1, wherein selectively generating the communication
2 session identifier comprises:

- 3 composing a deterministic element of the communication session identifier;
- 4 composing a random element of the communication session identifier; and
- 5 employing a mathematical function to generate the communication session i
- 6 using the deterministic element and the random element.

1 6. A method according to claim 5, wherein the deterministic element is comprised of one or
2 more of an electronic serial number (ESN) of the accessing subscriber unit, a media access
3 control (MAC) address of the subscriber unit, and/or a telephone number associated with the
4 subscriber unit.

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1 7. A method according to claim 5, wherein the random element is comprised of one or more
2 of a pseudo-random number, and/or a true random number generated from radio frequency (RF)
3 energy of thermal noise associated with the communication session.

I 8. A method according to claim 5, wherein the function employed concatenates the
I deterministic element and the random element to generate the communication session identifier.
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1 9. A method according to claim 5, wherein the function employed generates a hash of the
2 deterministic element and the random element to generate the communication session identifier.

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1 10. A machine accessible storage medium comprising a plurality of executable instructions
2 which, when executed by an accessing computing device, implement the method according to
3 claim 1.

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1 11. An apparatus comprising:
2 a network interface, to receive a request for a point-to-point communication session
3 between a wireless communication system subscriber unit and the apparatus through a
4 basestation; and
5 a communications agent, to selectively generate a communication session identifier to
6 uniquely identify the communication session from a plurality of communication sessions
7 supported by the apparatus to enable mobility management within the point-to-point
8 communication session between the basestation and the network access server.

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1 12. An apparatus according to claim 11, wherein the communications agent determines
2 whether the received request is a request for a new communication session or a handoff of an
3 existing communication session.

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1 13. An apparatus according to claim 11, wherein communications agent comprises:

2 a session identification generator, selectively invoked by communications agent, to
3 dynamically generate a communication session identifier including at least a deterministic
4 element and a random element.

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1 14. An apparatus according to claim 13, wherein communications agent analyzes attribute-
2 value pair(s) (AVP) of a received incoming call request control command to identify a callType
3 AVP to determine whether the incoming call request indicates a new communication session or a
4 handoff of an existing communication session.

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1 15. An apparatus according to claim 14, wherein communications agent selectively invokes
2 communication session identification generator if the AVP denotes a newCall call type, or if the
3 callType AVP is not identified within the incoming call request control command.

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1 16. An apparatus according to claim 13, wherein the session identification generator
2 composes the deterministic element using one or more of an electronic serial number (ESN) of
3 the accessing subscriber unit, a media access control (MAC) address of the subscriber unit,
4 and/or a telephone number of the subscriber unit.

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1 17. An apparatus according to claim 13, wherein the session identification generator
2 composes the random element of the session identifier utilizing a pseudo-random number
3 generator.

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1 18. An apparatus according to claim 13, wherein the session identification generator
2 composes the random element of the session identifier by generating a true random number from
3 radio frequency (RF) thermal noise.

I 19. An apparatus according to claim 13, wherein the session identification generator
2 composes a session identifier for the communication session by computing a function of one or
3 more of at least the deterministic element and/or the random element.

1 20. A machine accessible medium having stored therein a plurality of executable instructions
2 which, when executed by an accessing machine, implement a communications agent to receive a
3 request from a wireless communication system subscriber unit through a basestation for a point-
4 to-point communication session with the machine and to selectively generate a communication
5 session identifier to uniquely identify the communication session from one or more of a plurality
6 of communication sessions supported by the machine, and to enable mobility management
7 within the point-to-point communication session between the basestation and the machine.

1 21. A machine accessible medium according to claim 20, wherein the medium is a storage
2 device.

¹ 22. A machine accessible medium according to claim 20, wherein the medium is a
² propagated signal.

1 23. A machine accessible medium according to claim 20, wherein the communications agent
2 generates the session identifier upon determining that an incoming call request is for a new
3 communication session and not a handoff of an existing communication session.

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1 24. A machine accessible medium according to claim 23, wherein the communications agent
2 dynamically generates a unique session identifier including a deterministic element and a random
3 element.

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